

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 15423 - L2 Version 2  
Chandra X-Ray Center

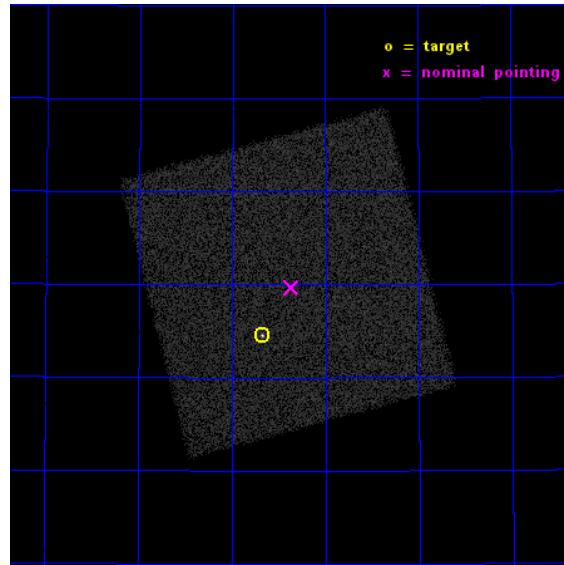
L2 Processing Date : Dec 6 2014

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# 1 Front

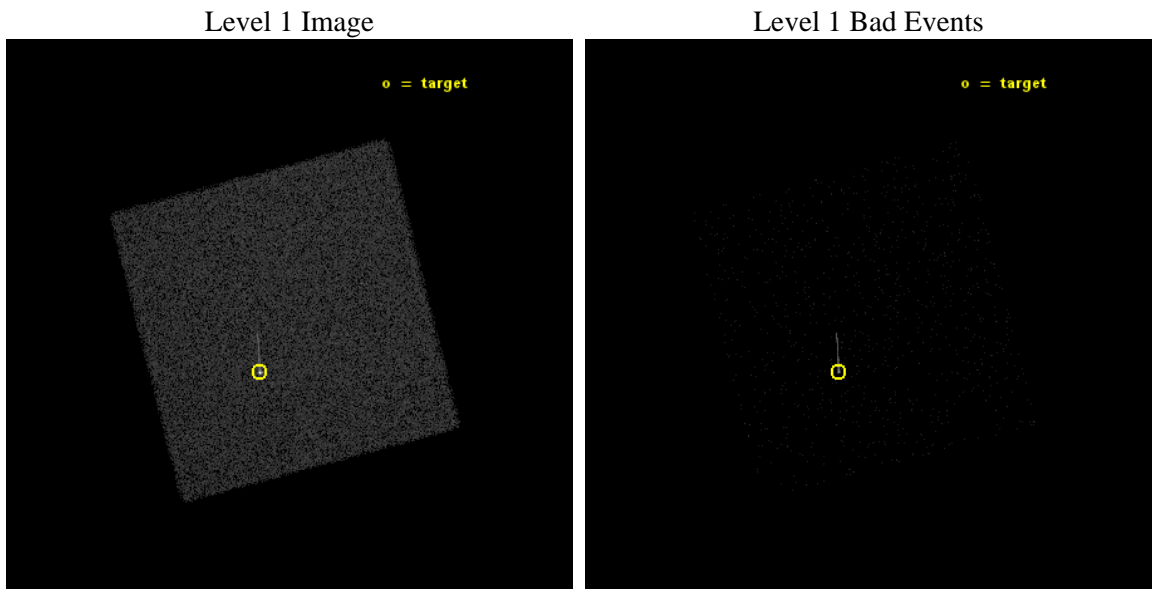
seq_num	291102	Sequence number
obs_id	15423	Observation id
title	AO-14 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.09124584573	Nominal RA [deg]
dec_nom	45.828495341993	Nominal Dec [deg]
roll_nom	210.37051323343	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1190.2813150287	[s]
livetime	1181.1429930818	Ontime multiplied by DTCOR
l2events	72037	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	1190.2813150287	[s]
caldbver	4.6.4	&#160	l1events	122238	Number of level 1 events
date	2014-12-06T14:45:39	Date and time of file creation			
revision	2	Processing version of data			

### 2.1.3 Events

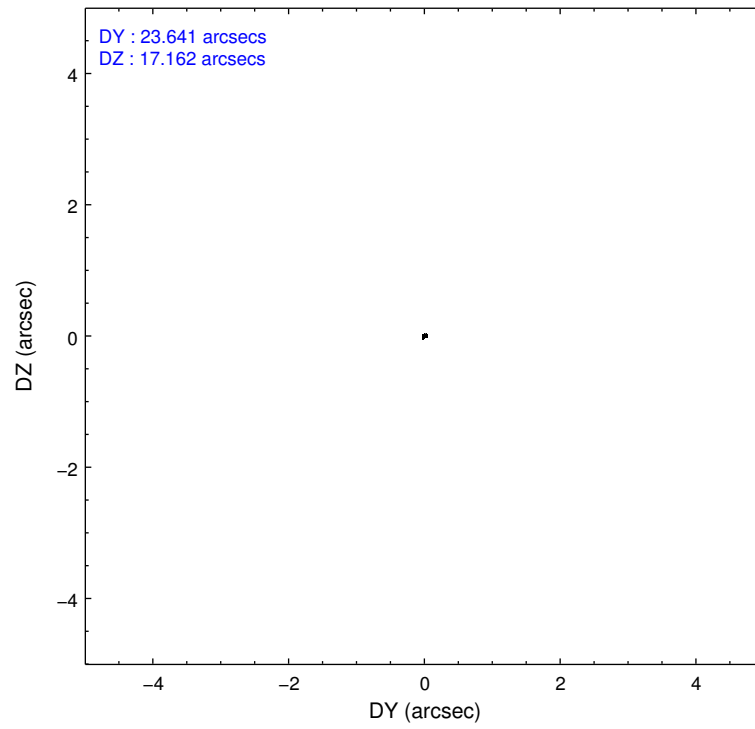
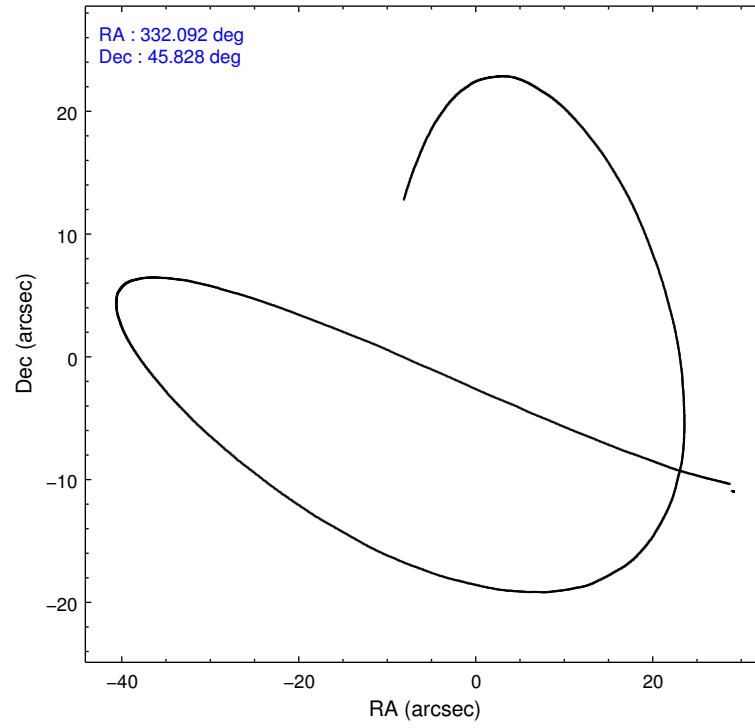
#### Level 1 Events

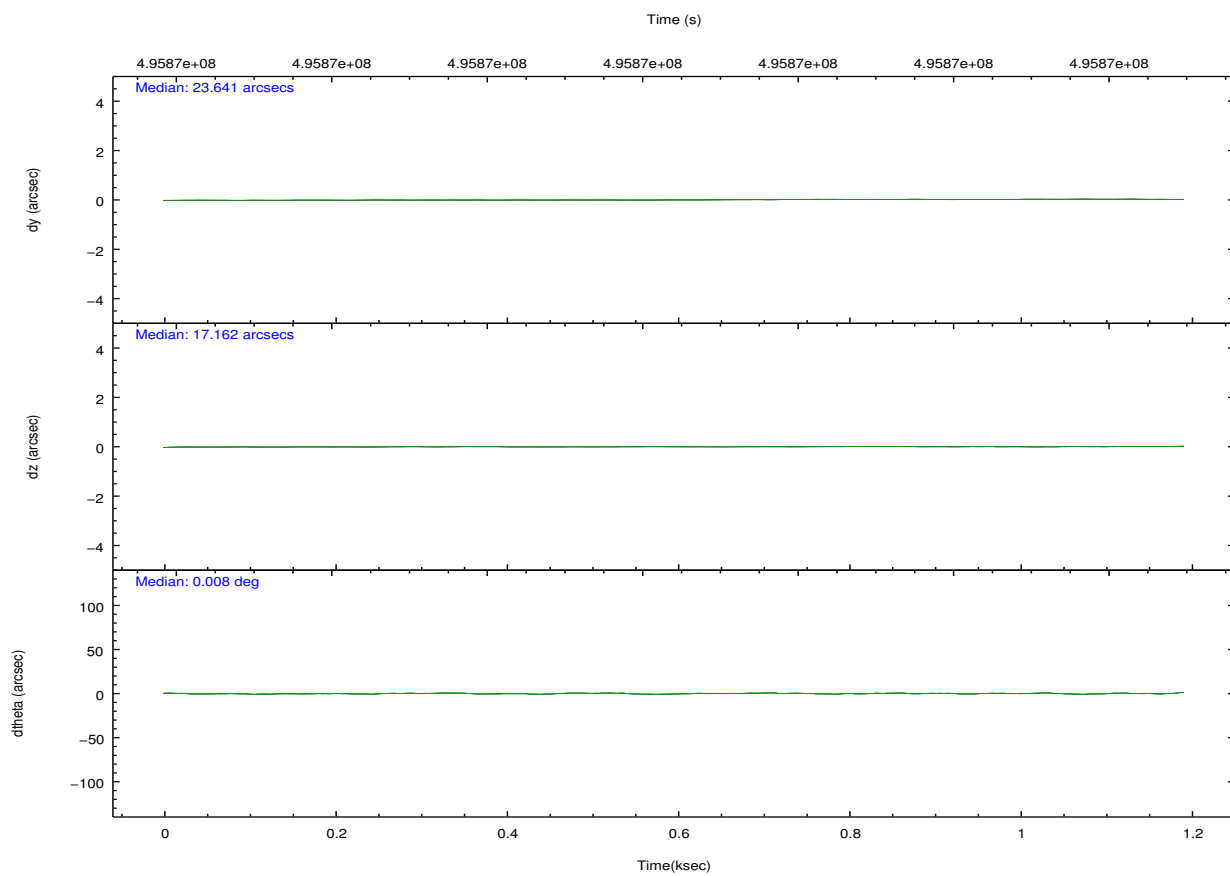
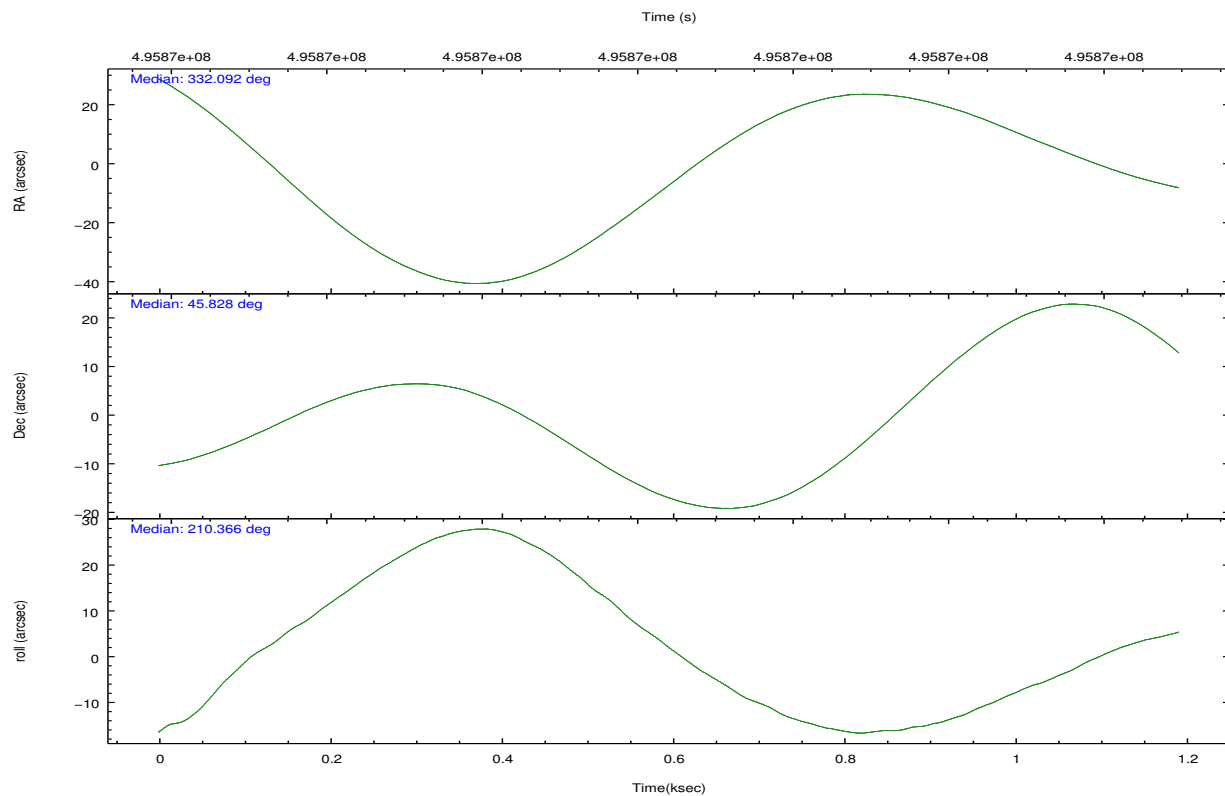
	<b>segment 0</b>
level 1 events	122238
rejected events	25983
rejected %	21%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	332.109876	332.0912458457318			
[deg] Pointing Dec	45.851825	45.82849534199327			
[deg] Pointing Roll	210.452605	210.3705132334294			
[mm] SIM focus pos	-1.040293	-1.038866356238299			
[mm] SIM defocus	0	0.001426264420575141			
[mm] SIM translation stage pos	126.985494	126.9854943052878			
[mm] SIM translation stage offset	0	-5.413686238853188e-06			
[s] Observation start time (MET)	495869437.184000	495869061.78563			
Observation start date	2013-09-18T05:29:30	2013-09-18T05:24:21			
[s] Observation end time (MET)	495870437.184000	495870571.61071			
Observation end date	2013-09-18T05:46:10	2013-09-18T05:49:31			

## 2.3 Aspect



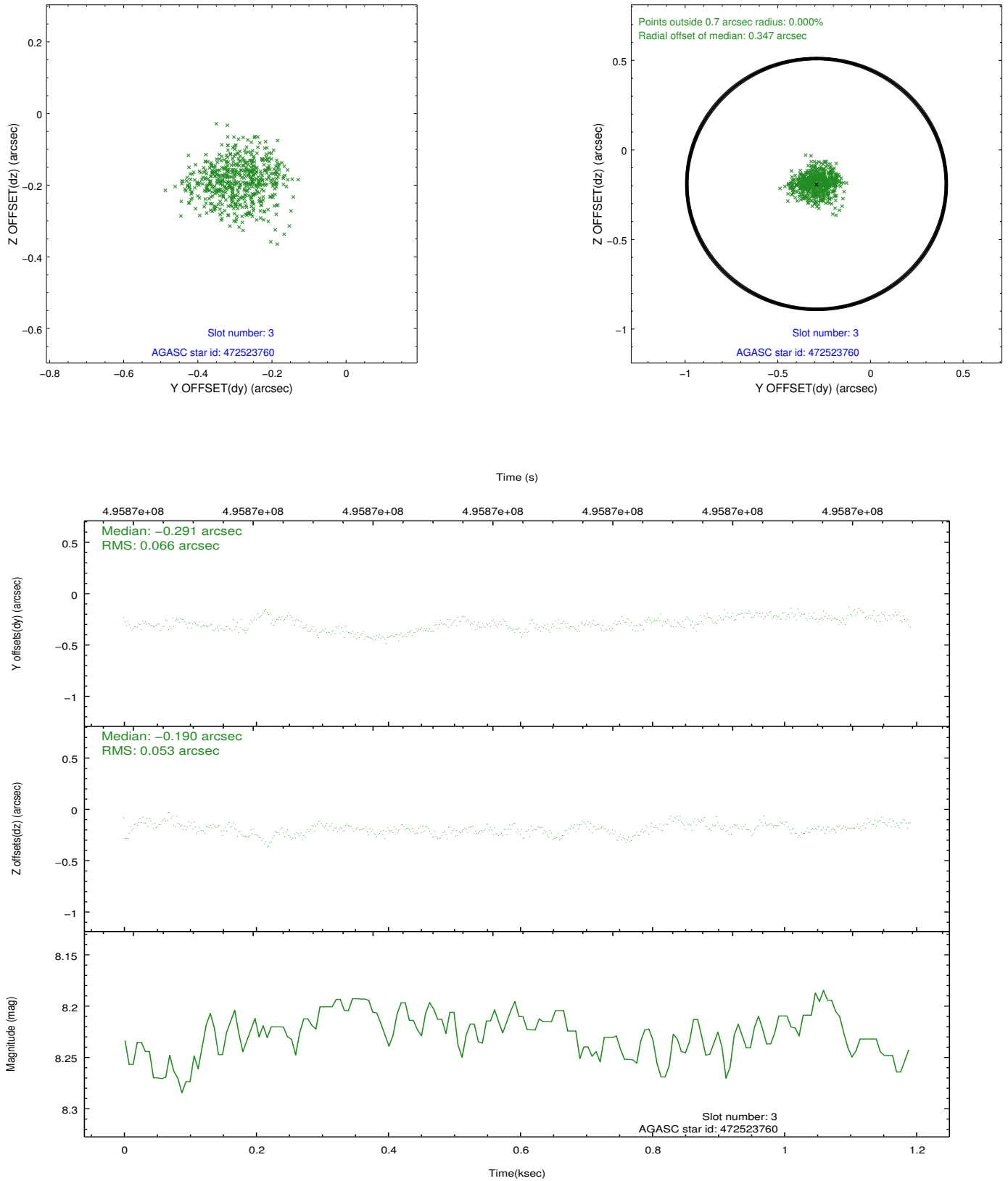


### Slot Statistics

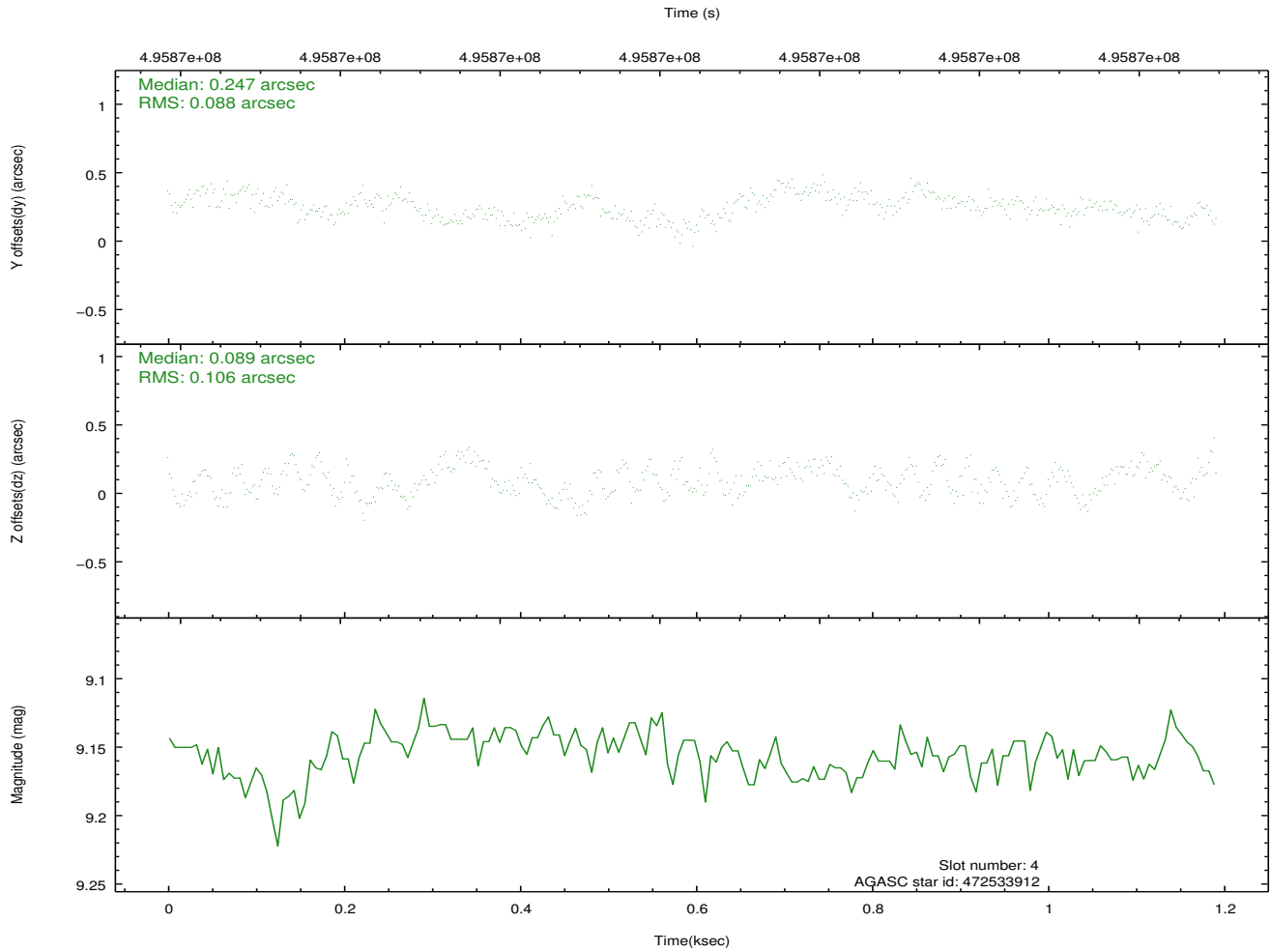
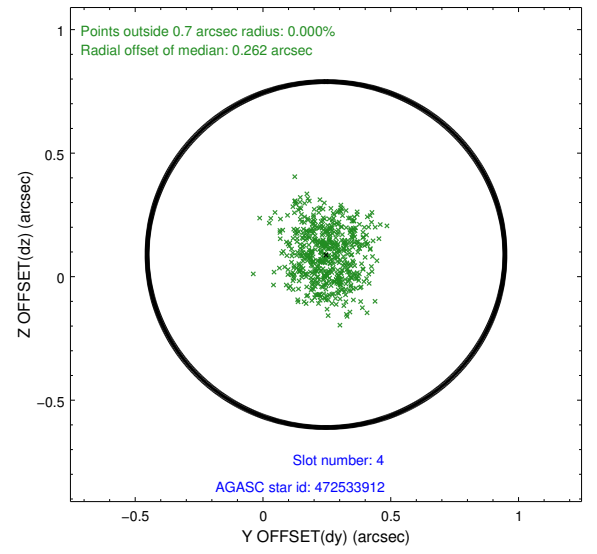
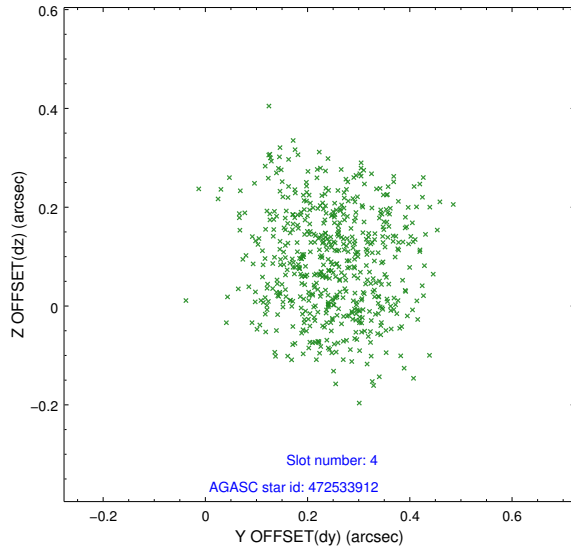
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-I-1	6.99	291	-0.091	0.038	0.007	0.009	0.000000	0.000000	-779.76	-1305.34
1	FID		HRC-I-2	7.03	291	0.257	-0.144	0.006	0.010	0.000000	0.000000	830.54	-1311.55
2	FID		HRC-I-3	7.08	291	-0.048	0.017	0.005	0.010	0.000000	0.000000	-1205.38	994.70
3	GUIDE	used	472523760	8.23	582	-0.291	-0.190	0.094	0.138	331.645363	45.403260	1829.99	796.45
4	GUIDE	used	472533912	9.16	582	0.247	0.089	0.151	0.229	331.791136	46.368695	-256.46	-2002.85
5	GUIDE	used	472535576	7.86	582	-0.174	0.176	0.082	0.124	331.438373	46.291802	634.52	-2218.89
6	GUIDE	used	472655152	9.41	582	0.026	-0.218	0.189	0.305	332.504239	45.862991	-871.48	462.81
7	GUIDE	used	472665256	9.01	581	0.186	0.140	0.095	0.154	332.808125	46.195041	-2130.02	-186.67

## 2.4 Star Slots

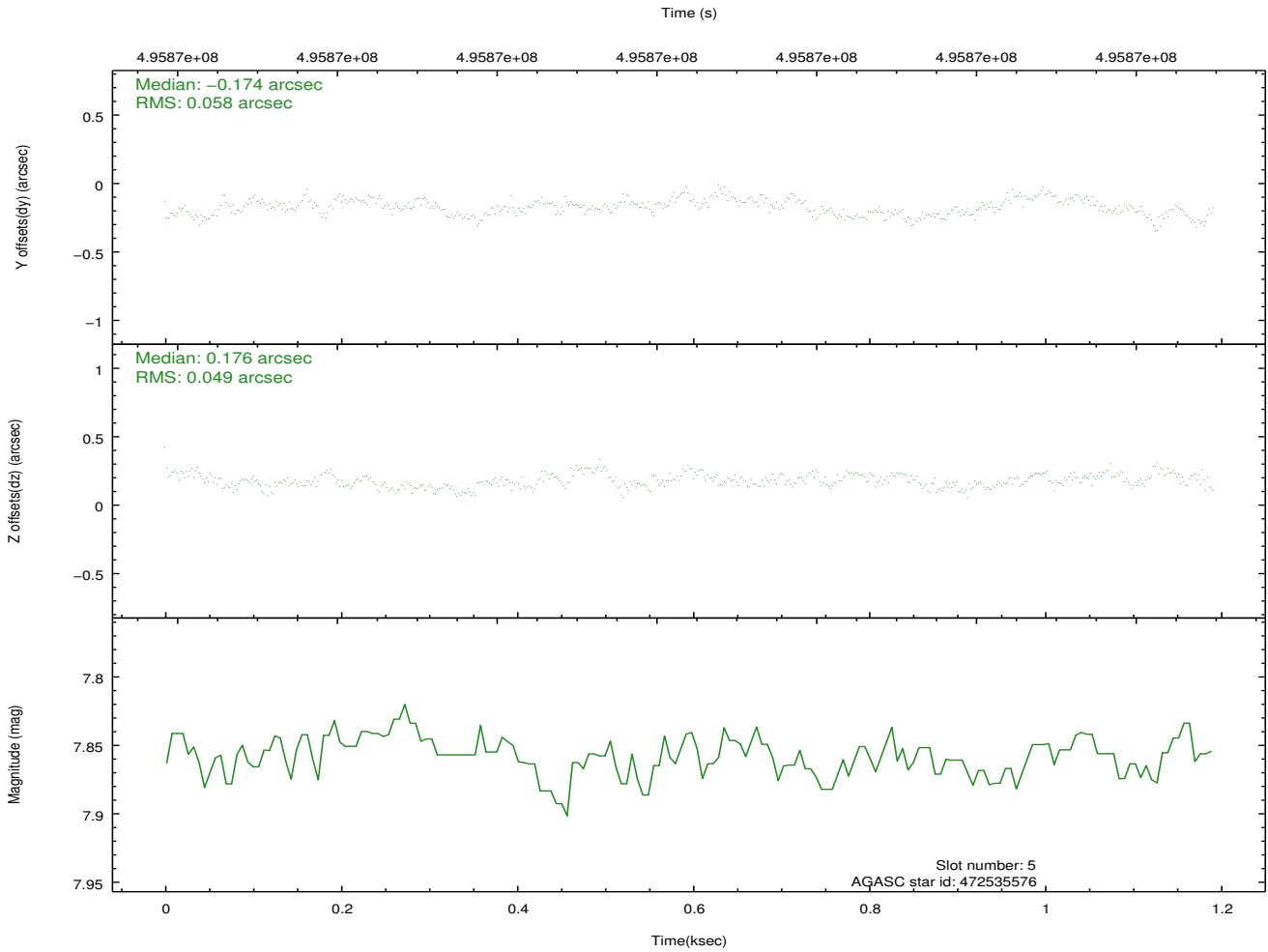
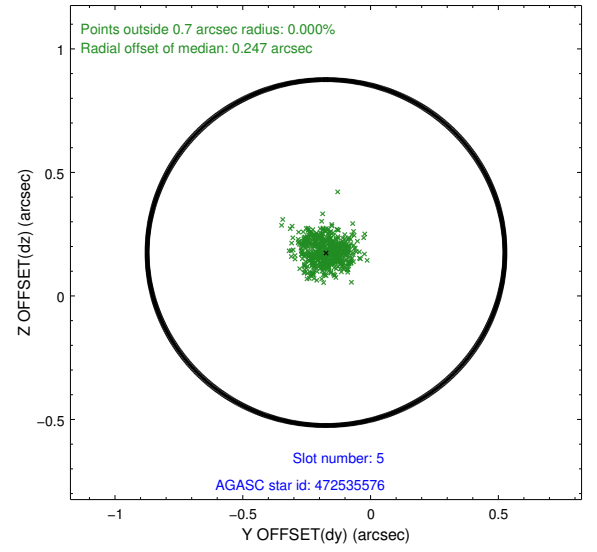
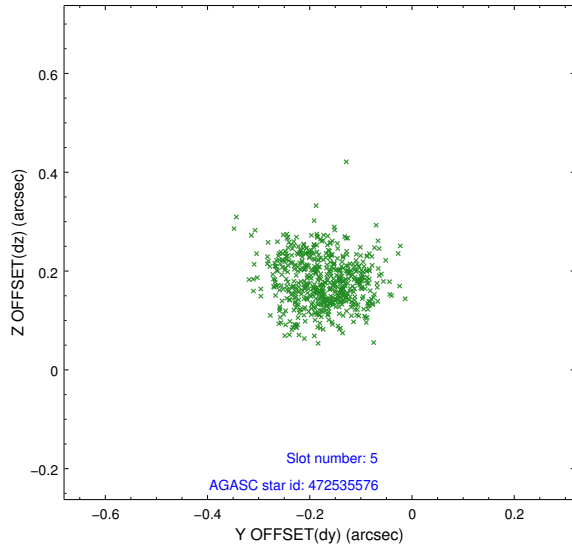
### 2.4.1 Slot 3



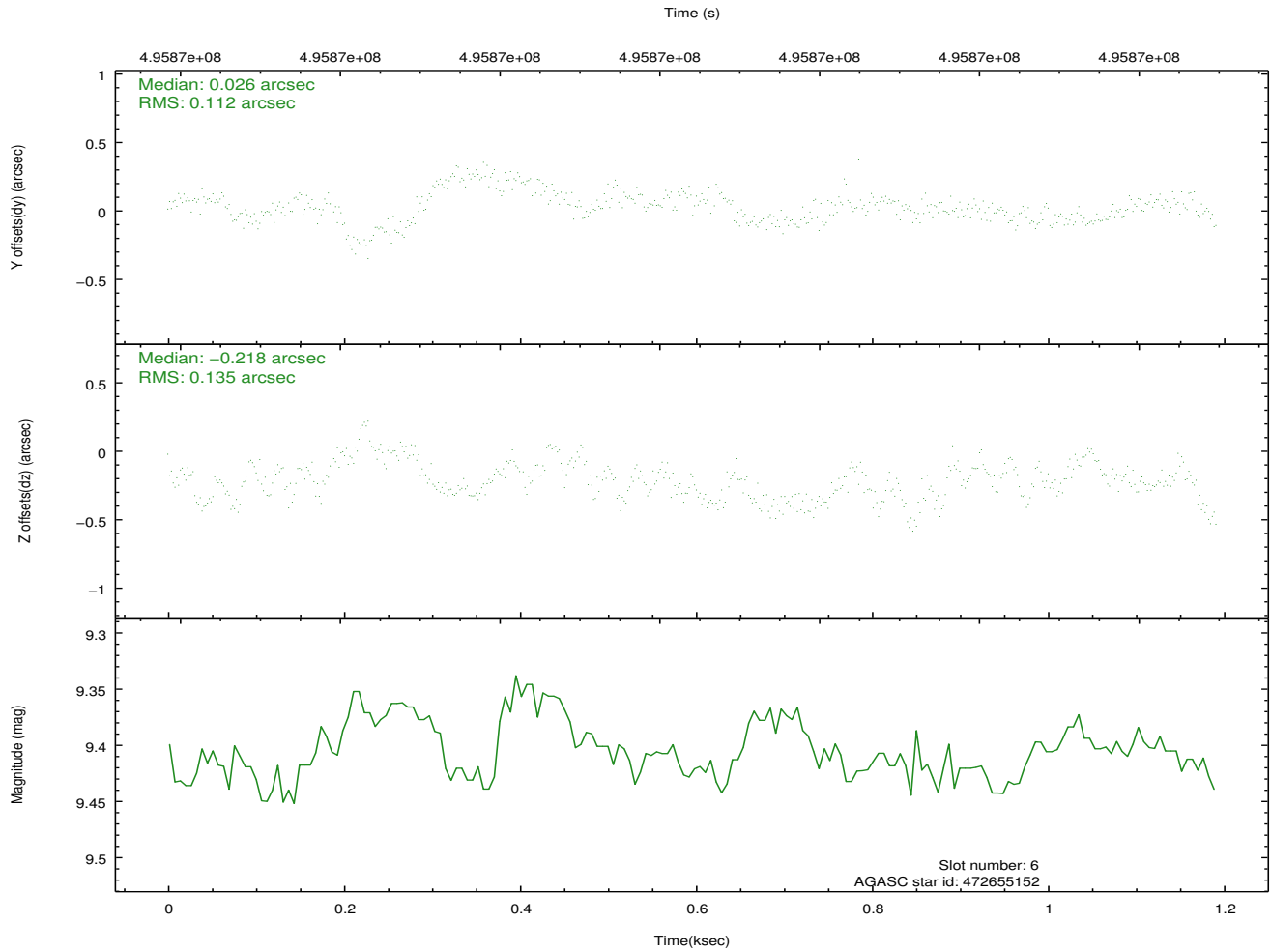
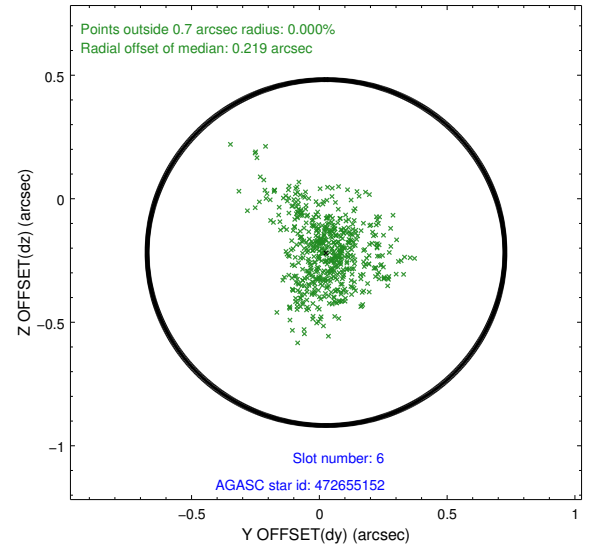
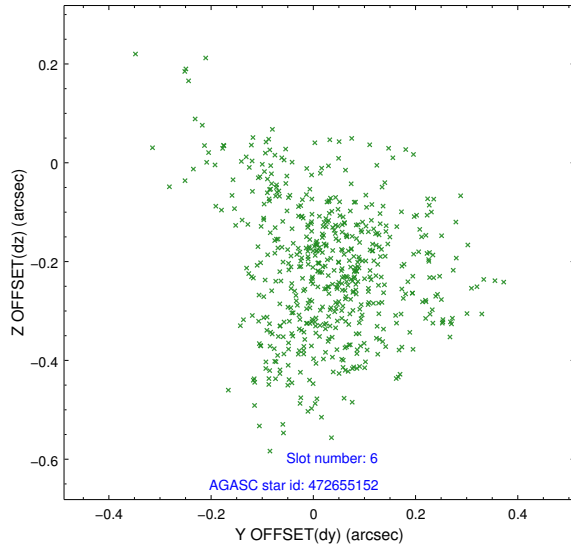
## 2.4.2 Slot 4



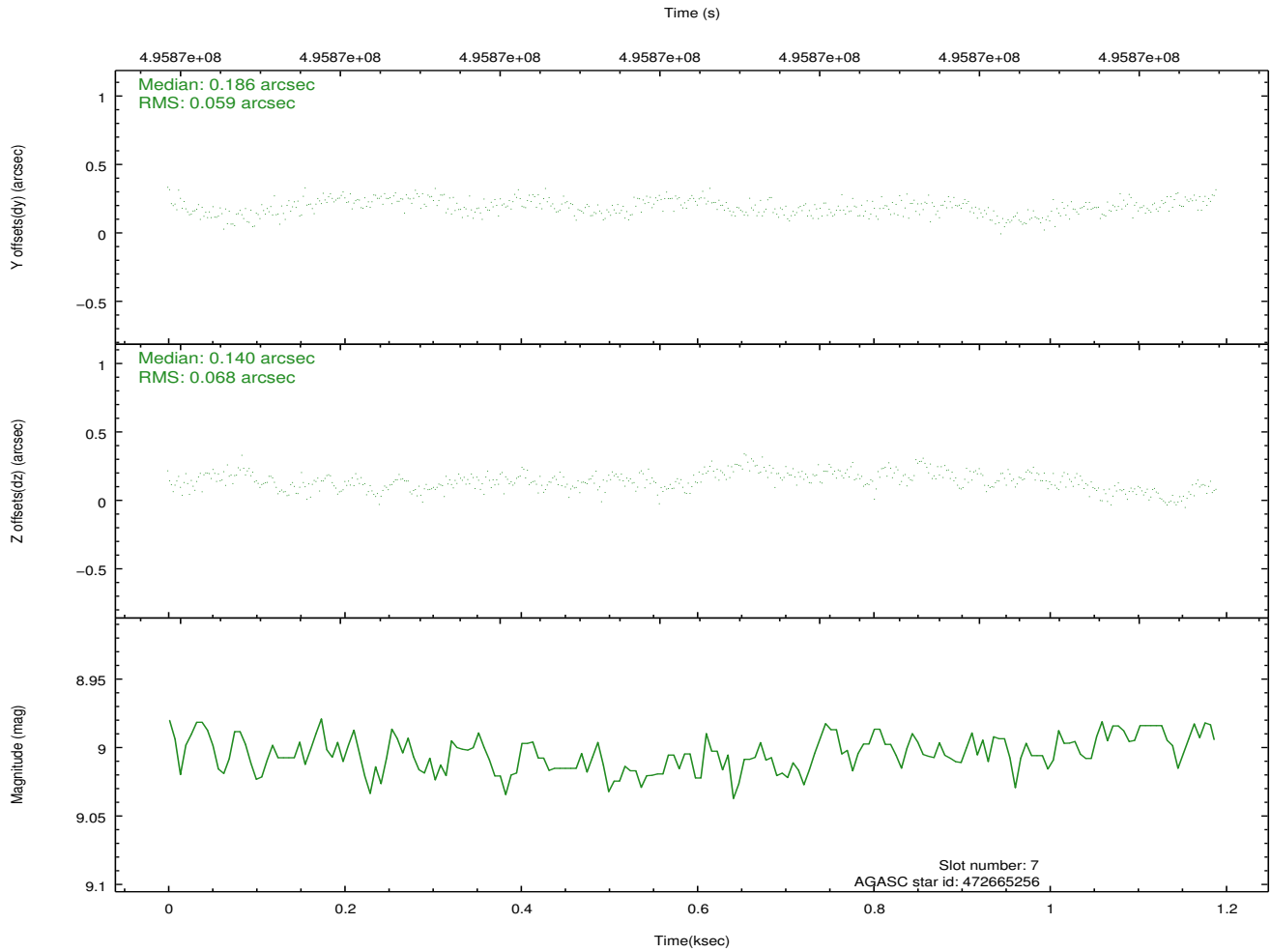
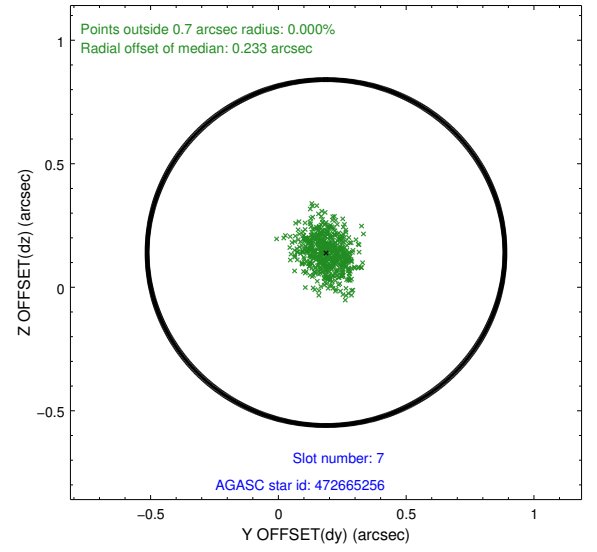
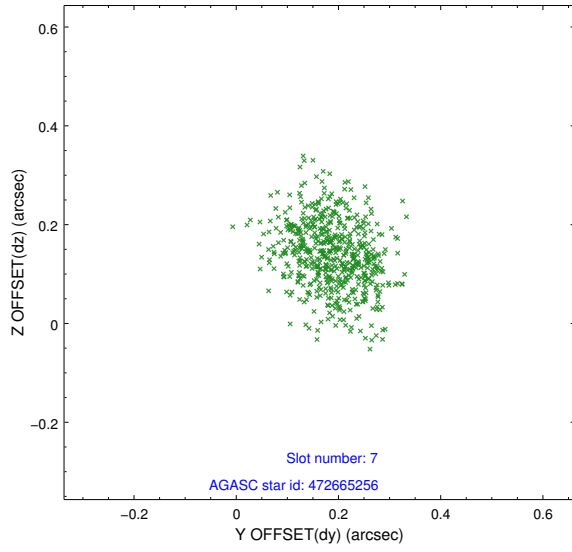
### 2.4.3 Slot 5



## 2.4.4 Slot 6

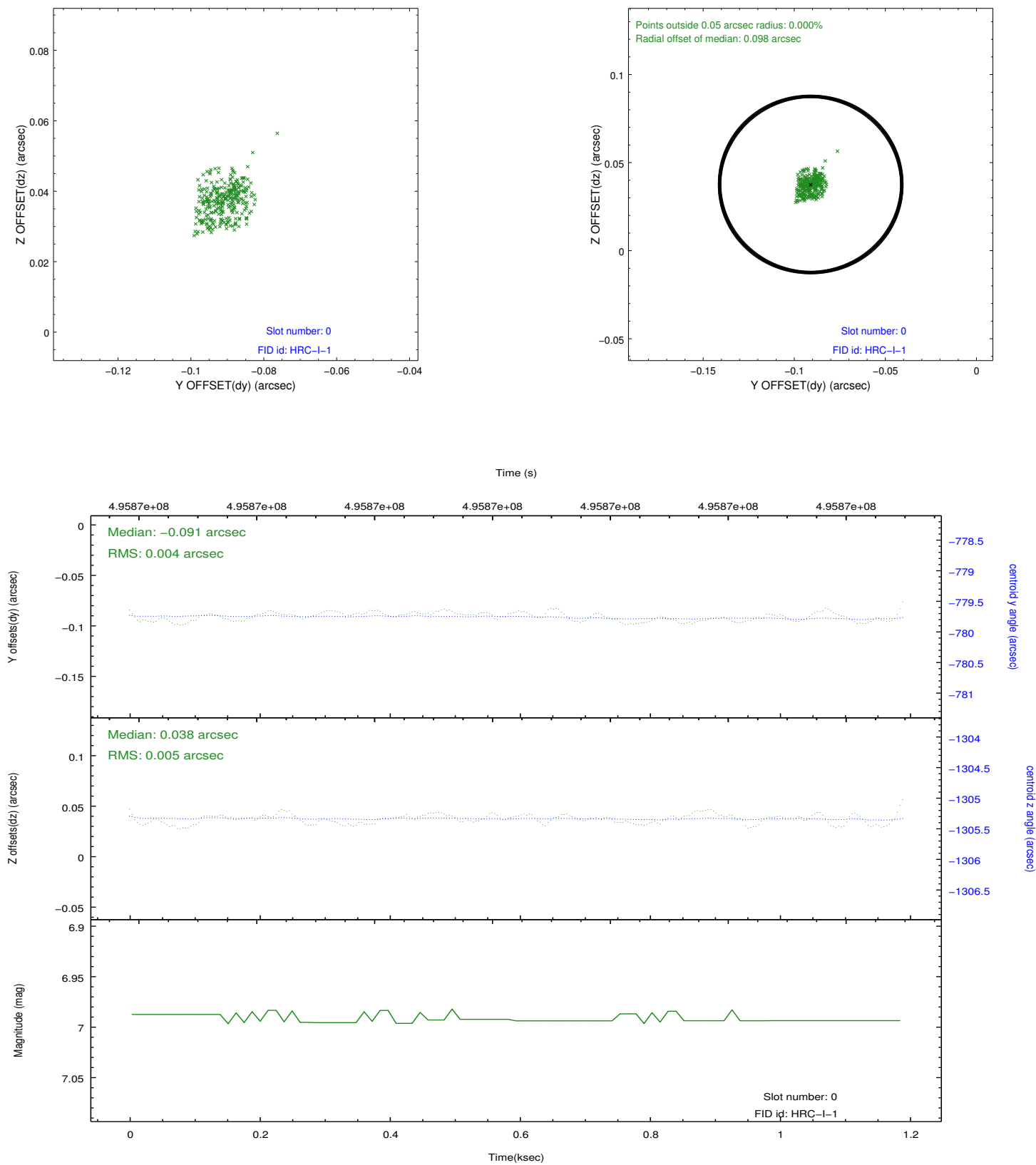


## 2.4.5 Slot 7

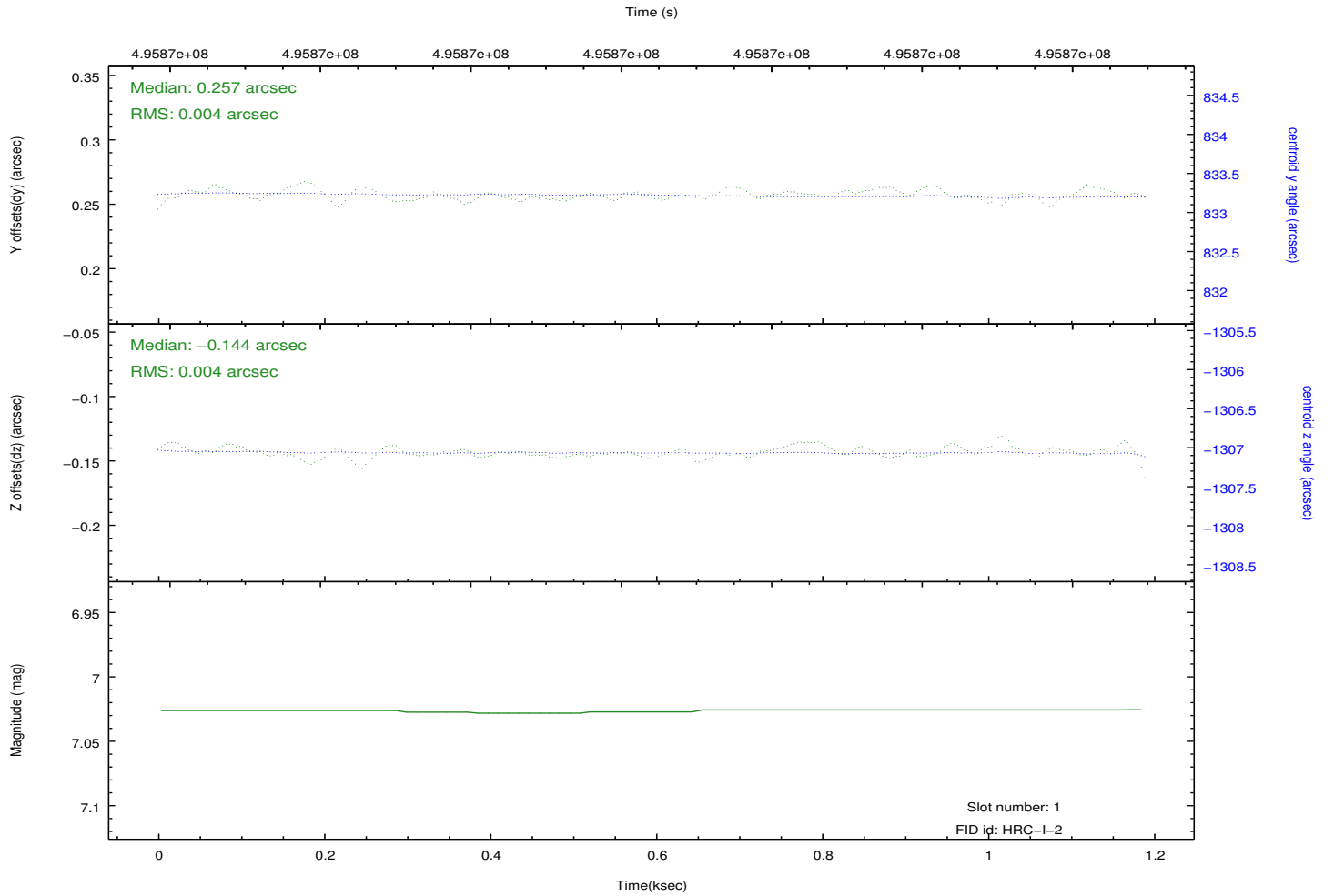
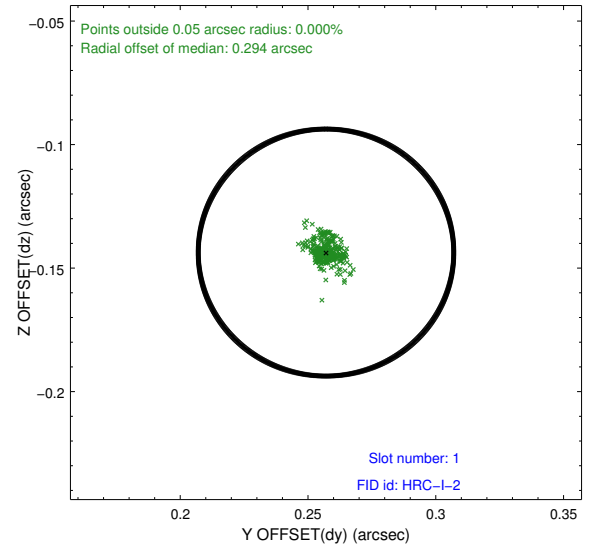
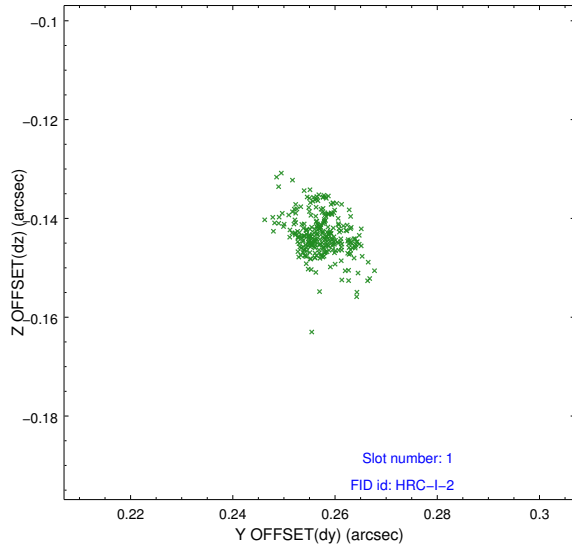


## 2.5 FID Slots

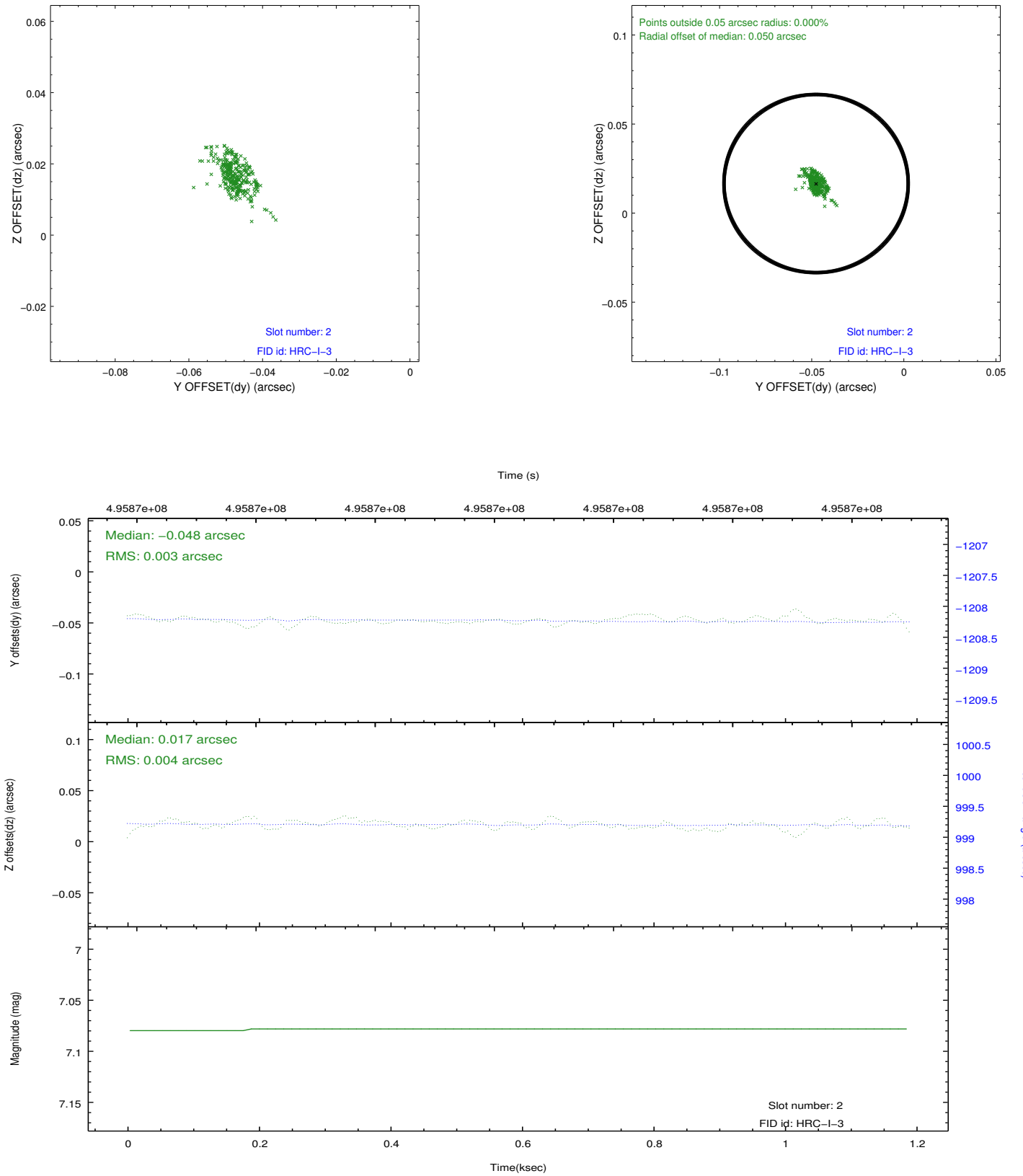
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.1902813150287

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.